

SEQUENCE LISTING

<110> JENSEN, PETER RUHDAL
HAMMER, KARIN

<120> ARTIFICIAL PROMOTER LIBRARIES FOR SELECTED ORGANISMS
AND PROMOTERS DERIVED FROM SUCH LIBRARIES

<130> 55411.2

<140> 09/242,657

<141> 1999-02-19



<150> DK 886/96

<151> 1996-08-23

<150> PCT/DK97/00342

<151> 1997-08-25

<160> 62

<170> PatentIn Ver. 2.1

<210> 1

<211> 100

<212> DNA

<213> Lactococcus lactis

<220>

<221> modified_base

<222> (26)..(30)

<223> "n" may be a, t, c, g, other or unknown

<220>

<221> modified_base

<222> (46)..(59)

<223> "n" may be a, t, c, g, other or unknown

<220>

<221> modified_base

<222> (70)..(71)

<223> "n" may be a, t, c, g, other or unknown

<220>

<221> modified_base

<222> (73)

<223> "n" may be a, t, c, g, other or unknown

<400> 1

cgggatcct aagaatatta tgcatnnnn agtttattct tgacannnnn nnnnnnnnnnt 60

100

<210> 2

<211> 113

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<220>

<221> modified_base

<222> (32)..(40)

<223> "n" may be a, t, c, g, other or unknown

<220>

<221> modified_base

<222> (61)..(74)

<223> "n" may be a, t, c, g, other or unknown

<220>

<221> modified_base

<222> (85)..(86)

<223> "n" may be a, t, c, g, other or unknown

<220>

<221> modified_base

<222> (88)

<223> "n" may be a, t, c, g, other or unknown

<400> 2

cgggatccaa gcttaatatt aattagcact cnnnnnnnnn gagtgtaat tttttgaca 60
nnnnnnnnnnn nnnntggat aatannanag tactgcagct gtctagaatt cg 113

<210> 3

<211> 199

<212> DNA

<213> Saccharomyces cerevisiae

<220>

<221> modified_base

<222> (17)..(76)

<223> "n" may be a, t, c, g, other or unknown

<220>

<221> modified_base

<222> (83)..(121)

<223> "n" may be a, t, c, g, other or unknown

<400> 3

cagaattcgt gactcannnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60
nnnnnnnnnnn nnnnnntata aannnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
nctctaagt gcaagtgact gcgaacattt ttgcgttg tttagataat tcaagaatcg 180
ctaccaatca tggatcccg 199

<210> 4

<211> 45

<212> DNA

<213> Pseudomonas putida

<220>
<221> modified_base
<222> (1)..(8)
<223> "n" may be a, t, c, g, other or unknown

<220>
<221> modified_base
<222> (13)..(31)
<223> "n" may be a, t, c, g, other or unknown

<220>
<221> modified_base
<222> (38)..(45)
<223> "n" may be a, t, c, g, other or unknown

<400> 4
nnnnnnnnntt grnnnnnnnn nnnnnnnnnn ntatratnnn nnnnn

45

<210> 5
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 5
cataccggag ttatattcttg acagttccac ctgggttga tataatatct cagtactgtt 60

<210> 6
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 6
catggcttag ttatattcttg acagggttgt atcaactgtga tataatagga cagtactgtt 60

<210> 7
<211> 59
<212> DNA
<213> Lactococcus lactis

<400> 7
cataagtgag ttatattcttg acccggacgc ccccctttga tataataagt agtactgtt 59

<210> 8
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 8
catataacaag ttatattcttg acactagtcg gccaaaatga tataataacct gagtactgtt 60

<210> 9
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 9
catgc~~tta~~c ttattcttg acaaaaccac cag~~ttt~~gg tataatacgt gagaactgtt 60

<210> 10
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 10
catgac~~gg~~ag ttattcttg acacagg~~t~~atga ggacttatga tataataaaa cagtactgtt 60

<210> 11
<211> 60
<212> DNA
<213> Lactococcus lactis

<220>
<221> modified_base
<222> (7)
<223> "n" may be a, t, c, g, other or unknown

<220>
<221> modified_base
<222> (13)
<223> "n" may be a, t, c, g, other or unknown

<400> 11
cattacntag ttnattcttg acagaattac gattcgctgg tataatatat cagtactgtt 60

<210> 12
<211> 58
<212> DNA
<213> Lactococcus lactis

<400> 12
cattgttag ttattcttg acagctatga gtcaatttg tataataaca gtactcag 58

<210> 13
<211> 59
<212> DNA
<213> Lactococcus lactis

<400> 13
cattctggag ttattcttg accgctcagt atgcagtggt ataatagtc agtactgtt 59

<210> 14

<211> 58
<212> DNA
<213> Lactococcus lactis

<400> 14
catttgcag ttattcttg acattgtgt ctccgggtgt ataatactaa gtactgtt 58

<210> 15
<211> 58
<212> DNA
<213> Lactococcus lactis

<400> 15
catcgcttag ttttcttg caggaggat ccgggtgtatataatgtt gtactgtt 58

<210> 16
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 16
catttgctag ttatcttg acatgaagcg tgccataatgg tatattactt gagtactgtt 60

<210> 17
<211> 60
<212> DNA
<213> Lactococcus lactis

<220>
<221> modified_base
<222> (32)
<223> "n" may be a, t, c, g, other or unknown

<400> 17
catgggtgag ttattcttg acagtgcggc cnngggctga tatcatagca gagtactatt 60

<210> 18
<211> 59
<212> DNA
<213> Lactococcus lactis

<400> 18
cattaccgag ttattcttg acaccgtta tcggggtgtt ataatactat agtactgtt 59

<210> 19
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 19
catgttaggag ttattcttg acagattagt taggggtgg tataatatct cagtactgtt 60

<210> 20
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 20
catggtaag ttattcttc acactatctg ggcccgatgg tataataagt gactactgtt 60

<210> 21
<211> 59
<212> DNA
<213> Lactococcus lactis

<400> 21
cttggcagt ttattcttga catgtatgtga gggggctggt ataatcacat agtactgtt 59

<210> 22
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 22
catttacag ttattcttg acattgcact gtccccctgg tataataact atacatgc 60

<210> 23
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 23
catggggccg ttattcttg acaacggcga gcagacctgg tataataata tagtactgtt 60

<210> 24
<211> 59
<212> DNA
<213> Lactococcus lactis

<400> 24
catcgtaag ttattcttga catctcaggg gggacgtggt ataataactg agtactgtt 59

<210> 25
<211> 60
<212> DNA
<213> Lactococcus lactis

<220>
<221> modified_base
<222> (29)..(30)
<223> "n" may be a, t, c, g, other or unknown

<400> 25
catcctgtag ttattcttg acacacgtttt tagctgtgg tataatagga gagtactgtt 60

<210> 26
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 26
catgacagag ttattcttg acagtattgg gttactttgg tataatagtt gagtactgtt 60

<210> 27
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 27
catacgggag ttattcttg acatattgcc ggtgtgtgg tataataact tagtactgtt 60

<210> 28
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 28
catgttggag ttattcttg acataacaatt actgcagtga tataataggt gagtactgtt 60

<210> 29
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 29
catcgcaag ttattcttc acacaccgca gaacttgtgg tataatacaa cagtactgtt 60

<210> 30
<211> 59
<212> DNA
<213> Lactococcus lactis

<400> 30
catcattaag ttattcttc acattggccg gaattgtgtt ataataacctt agtactgtt 59

<210> 31
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 31

catagagaag ttatattcttg acagctaact tggccttga tataatacat gagtactgtt 60

<210> 32

<211> 60

<212> DNA

<213> Lactococcus lactis

<400> 32

cattgcgaag ttatattcttg acagtaacgttttaccatga tataatagta tagtactgtt 60

<210> 33

<211> 60

<212> DNA

<213> Lactococcus lactis

<400> 33

gatgttttag ttatattcttg acaccgtatc gtgcgcgtga tataatcggg atcctaaga 60

<210> 34

<211> 59

<212> DNA

<213> Lactococcus lactis

<400> 34

catagaacag ttatattcttg acattgaata agaaggctga tataatagcc agtactgtt 59

<210> 35

<211> 60

<212> DNA

<213> Lactococcus lactis

<400> 35

catccgcaag ttatattcttg acagctgaat gtagacgtgg tataatagtt aagtactgtt 60

<210> 36

<211> 60

<212> DNA

<213> Lactococcus lactis

<400> 36

cattcgtaag ttatattcttg acacctgaga tgaggcgtga tataataaat aagtactgtt 60

<210> 37

<211> 59

<212> DNA

<213> Lactococcus lactis

<400> 37

catcggttag ttatattcttg acaattaagt agagcctgat ataatagttc agtactgtt 59

<210> 38
<211> 59
<212> DNA
<213> Lactococcus lactis

<400> 38
catggggag ttattcttg acatcatctt ctagcctgg tatactacat gagtatgtt 59

<210> 39
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 39
catgtgggag ttattcttg acacagatat ttccggatga tataataact gagtactgtt 60

<210> 40
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 40
tatgcggtag ttattcttg acatgacgag acaggtgtgg tataatgggt cttagattagg 60

<210> 41
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 41
cattcttag ttattcttg acaaacgtat tgaggactga tataataggt gagtactgtt 60

<210> 42
<211> 60
<212> DNA
<213> Lactococcus lactis

<400> 42
catagtctag ttattcttg acacgcggtc cattggctgg tataataatt tagtactgtt 60

<210> 43
<211> 177
<212> DNA
<213> Saccharomyces cerevisiae

<400> 43
gaattcgtga ctcaaacggg tggtcacgg gtggttccaa ttaattggcg tccctcttat 60
aaaggcgagg gtacgtgcga caatggtag agcgagcggg gctctaagt gcaagtgact 120
gcgaacattt tttcgtttg ttagaataat tcaagaatcg ctaccaatca tggatcc 177

<210> 44
<211> 182
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 44
gaattcgtga ctcacggcat ctgatggtt accatagtca ggaacattgt gctggagttc 60
cttgaggaaat gatgtataaa atgggagggt gcggtataat ccaggcagga gaggaaccct 120
cttaagtgc aatgtactgc aacattttt tcgtttgtt aatcgctacc aatcatggat 180
cc 182

<210> 45
<211> 191
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 45
gaattcgtga ctcacttaggc aggtcacgtt ggctttcgc ggccgcagggt cgtatgccgc 60
ggcccccagggt gctttataaaa ggtcgccctg ggtacagtgtt ggatggctcc acgtttccgc 120
tcttaagtgc aatgtactgc aacatttcg ttgttagaa taattcaaga atcgctacca 180
atcatggatc 191

<210> 46
<211> 167
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 46
gaattcgtga ctcagggccg tactaagttag ctttcgatgt ctatgcgggg tttataaaat 60
ctttggccca tggctctgtt ggaaaacacc tctcttaagt gcaatgtact gcgaacattt 120
tttcgtttt tagaataat tcaagaatcg ctaccaatca tggatcc 167

<210> 47
<211> 191
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 47
gaattcgtga ctcaccgctc ggggtgcagggtt ccaaggcggc ggaatgtgcg gggcggtcta 60
gcccgttatgggtt ggtataaaatttataaggagggttgc tagtttgtctt agtttgactc 120
ttaaatgtcaa gtgactgcga acattttcg ttgttagaa taattcaaga atcgctacca 180
atcatggatc 191

<210> 48
<211> 195
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 48
gaattcgtga ctcaggattt gctatgccgg ttgggataag cgaacaactg gaggtgagaa 60
gctttttgttca agaatataaaa cccgttagtc agggttgggtt gggatagggggttactgtacc 120

tcttaagtgc aagtgactgc gaacattttt ttcgttgtt agaataattc aagaatcgct 180
accaatcatg gatcc 195

<210> 49
<211> 179
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 49
gaattcgtga ctcactaagg gttcgccatt aacagaatcg ctggtagaac atcggtagtt 60
aggcacccga gtataaacag gcggaccct cacggatatc agctgatagt gcgagcctca 120
atcgaaacat ttttcgtt tgtagaata attcaagaat cgctaccaat catggatcc 179

<210> 50
<211> 195
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 50
gaattcgtga ctcagtatcc acgggtgtt gagggtgtt cgcaggtag caggcgaggg 60
cgggtgtt cggctataaaa tgagtgttg cagccggta cggcgtacg agtagtgatc 120
tcttaaatgc aagtgactgc gaacattttt ttcgttgtt agaataattc aagaatcgct 180
accaatcatg gatcc 195

<210> 51
<211> 193
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 51
gaattcgtga ctcaatgctg cggccggcag gagtctggtg taacttccca tttgagtga 60
aagacagacc atctataaac atttggggg caaagtggcc tggcggattt gttggactc 120
ttaagtgaaa gtgactgca acatttttt cgttgttag aataatcaa gaatcgctac 180
caatcatgga tcc 193

<210> 52
<211> 166
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 52
gaattcgtga ctcaacttaag gctactgcgg aagtttagat ctaaggtcgaaataattta 60
gaaaattacg acattataaaa tagcggagag gccaggttat gggcaccatt gtggggggc 120
tcttaattgt tagaataattt caagaatcgca taccaatcatg gatcc 166

<210> 53
<211> 195
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 53

gaattcgtga ctcaagtgcggcc cgcaagatgg gatggtgcat tttaaacacc cgaattatac 60
tcgtcaact atatataaaa cggAACGCGA cgatacgttc tagtttcgg cgaagtcgac 120
tcttaagtgc aagtgactgc gaacattttt ttcgtttgtt agaataattc aagaatcgct 180
accaatcatg gatcc 195

<210> 54
<211> 188
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 54
gaattcgtac tcacgacagc gttatgactt cgaggaccag ctactccgg tcgcgtacta 60
gttttacctt gtataaaactt tgctaccgtt gggccttggt ggtgctgtcc cgctctaag 120
tgcaagtgac tgcaacattttt ttcgtttgtt agaataattc aagaatcgct 180
atggatcc 188

<210> 55
<211> 195
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 55
gaattcgtga ctaaatggat aaggttatcg ccatcacgga gtcttcgtc acgtctggag 60
cagaggctag accttataaa ttatacatgg tggagagggc gatagtcgtt agagacgtgc 120
tcttaagtgc aagtgactgc gaacattttt ttcgtttgtt agaataattc aagaatcgct 180
accaatcatg gatcc 195

<210> 56
<211> 189
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 56
gaattcgtga ctcacaagaa tggggcgggg tcgttaaact gagcctggac accttggctg 60
cgtcgcitc gtataaagat cttagagctg tggagtcgtt gtcgagtcggc cagctctaa 120
atgcaagtga ctgcgaacat ttttcgtt tgtagaata attcaagaat cgctaccaat 180
catggatcc 189

<210> 57
<211> 195
<212> DNA
<213> *Saccharomyces cerevisiae*

<400> 57
gaattcgtga ctcaactcgga agattgggtt tacgattagg atggcgcggc agaaccgggg 60
gggatccct tctatataaaa gggttcgtt actacgtgtt gcgacggcc gatcgagttt 120
tcttaagtgc aagtgactgc gaaaattttt ttcgtttgtt agaataattc aagaatcgct 180
accaatcatg gatcc 195

<210> 58
<211> 176

<212> DNA

<213> Saccharomyces cerevisiae

<400> 58

gaattcgtga ctcatctagt gagaggagcc gtggtatctt gtgcaccac caggggaaaa 60
taatggcagg ggtgtataaa tggtcgagta gtgcgaccc acgctgcaag gcaaggaact 120
cttaaatttt ttccgttgt tagaataatt caagaatcgc taccaatcat ggtatcc 176

<210> 59

<211> 23

<212> DNA

<213> Saccharomyces cerevisiae

<400> 59

ctctaagtgc acaatgcgtc cga

23

<210> 60

<211> 52

<212> DNA

<213> Lactococcus lactis

<220>

<221> modified_base

<222> (16)..(29)

<223> "n" may be a, t, c, g, other or unknown

<220>

<221> modified_base

<222> (40)..(41)

<223> "n" may be a, t, c, g, other or unknown

<220>

<221> modified_base

<222> (43)

<223> "n" may be a, t, c, g, other or unknown

<400> 60

agtttattct tgacannnnn nnnnnnnnt grtataatan nwnagtactg tt 52

<210> 61

<211> 27

<212> DNA

<213> Lactococcus lactis

<220>

<221> modified_base

<222> (10)..(18)

<223> "n" may be a, t, c, g, other or unknown

<400> 61

ttagcactcn nnnnnnnnnga gtgctaa

27

<210> 62
<211> 73
<212> DNA
<213> Lactococcus lactis

<220>
<221> modified_base
<222> (10)..(18)
<223> "n" may be a, t, c, g, other or unknown

<220>
<221> modified_base
<222> (39)..(52)
<223> "n" may be a, t, c, g, other or unknown

<220>
<221> modified_base
<222> (63)..(64)
<223> "n" may be a, t, c, g, other or unknown

D5
cancer
<220>
<221> modified_base
<222> (66)
<223> "n" may be a, t, c, g, other or unknown

<400> 62
ttagcactcn nnnnnnnnga gtgctaattt ttttgacann nnnnnnnnnn nntgrtataa 60
tannwnagta ctg 73
